

**ABSTRACT OF DISCLOSURE**

An equalizer for a high density optical disc reproducing apparatus and an equalizing method therefore are provided. The equalizer includes: a non-linear transformer, which transforms an input signal according to predetermined threshold levels; a cosine transform filter, which inverts phases of high frequency spectrum components of an output signal of the non-linear transformer; a high boost filter, which increases amplitudes of high frequency spectrum components of the input signal; and an adder, which adds an output signal of the cosine transform filter with an output signal of the high boost filter. Therefore, the equalizer can increase recording density of the optical disc in the high density optical disc reproducing apparatus and accordingly increase recording amount of information, by reducing inter-signal interference (ISI) and increasing a signal-to-noise ratio in the output signal of the equalizer. Also, the equalizer has a simple configuration.